INDUSTRIES OF THE FUTURE

BestPractices

Tools and Information

August 2001

OFFICE OF INDUSTRIAL TECHNOLOGIES

ENERGY EFFICIENCY AND RENEWABLE ENERGY, U.S. DEPARTMENT OF ENERGY

OIT Tools Can Help You Improve Productivity

OIT TOOLS CAN HELP MANUFACTURING PLANTS:

- Improve reliability
- Reduce downtime
- Save money
- Increase productivity and competitiveness
- Reduce emissions

Make your manufacturing process more efficient and productive through the use of new technologies and industrial system improvements. The U.S. Department of Energy's Office of Industrial Technologies (OIT) provides a wide range of resources to help U.S. industry save energy and money, reduce emissions and waste, and increase productivity and competitiveness.

We invite you to access the tools described below through the BestPractices Web site at **www.oit.doe.gov/bestpractices**, or request copies through the OIT Clearinghouse at (800) 862-2086.

Case Studies document best practices and lessons learned in industrial system improvement and technology implementation projects. Discover what other manufacturers are doing to improve the efficiency of their systems and the economic benefits they are achieving.

Software and Databases help you save money through efficient energy management of your systems.

- *ASDMaster* teaches you how to apply adjustable speed drives (ASDs) from a total system perspective.
- *AirMaster+* provides comprehensive information on assessing compressed air systems, including modeling existing and future system upgrades, and evaluating savings and effectiveness of energy efficiency measures.
- *MotorMaster+* makes your job of managing electric motor-driven systems easier by allowing you to compare repair versus replace options, analyze savings on utility bills, store and retrieve testing and maintenance history, and much more.
- *3E Plus* calculates the economic thickness of industrial insulation.
- *Pumping System Assessment Tool (PSAT)* guides you in assessing the efficiency of your pumping system operations. PSAT uses achievable pump and motor performance data to calculate potential energy and associated cost savings.
- *Steam System Scoping Tool* helps you profile and grade steam system operations and management. This spreadsheet tool will assist you in evaluating your steam system operations against identified best practices.
- *Allied Partner Database* allows you to find service providers in your geographic area or area of interest who can assist with energy efficiency analysis and plant upgrades.
- *Industrial Assessment Center (IAC) Database* contains information on energy, waste, and productivity recommendations made to small and mid-size manufacturing plants by faculty and students from 26 university-based IACs.

***Energy Matters* Newsletter** covers technical articles and innovative, hands-on examples of what industry is doing to improve its operations. Read the latest news about motor, steam, compressed air, and process heating systems, and other energy-efficient technologies on a bimonthly basis. You can read the *Energy Matters* newsletter and its supplement, *Energy Matters Extra*, online.

Technical Publications include tip sheets, reports, and sourcebooks, such as:

- Improving Compressed Air System Performance: A Sourcebook for Industry
- Energy-Efficient Electric Motor Selection Handbook
- IAC Self Assessment Workbook
- Steam Systems Energy Efficiency Handbook
- Compressed Air System Market Assessment
- Improving Pumping System Performance: A Sourcebook for Industry
- Pump Life Cycle Costs: A Guide to LCC Analysis for Pumping Systems
- Plant Profiles: Industrial Energy Management in Action
- BestPractices tip sheets on improving efficiency in industrial systems

The **OIT Clearinghouse** is the central access point for products and services on topics covering motor, steam, compressed air, and process heating systems. Knowledgeable staff are on hand to answer questions, provide advice, and disseminate products. For publications and more information, call the OIT Clearinghouse at (800) 862-2086.

Access the **BestPractices** site at **www.oit.doe.gov/bestpractices** for a complete list of available products. You can gain immediate access to many products by downloading them from the site. The Web site also contains general information about BestPractices programs, plant-level activities, training opportunities, and provides links to other helpful sites.

About DOE's Office of Industrial Technologies

The Office of Industrial Technologies (OIT), through partnerships with industry, government, and non-governmental organizations, develops and delivers advanced energy efficiency, renewable energy, and pollution prevention technologies for industrial applications. OIT is part of the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy.

OIT encourages industry-wide efforts to boost resource productivity through a strategy called Industries of the Future (IOF). IOF focuses on the following nine energy- and resource-intensive industries:

- Agriculture
- Aluminum
- Chemicals
- Forest Products
- Glass
- Metal Casting
- Mining
- Petroleum
- Steel

OIT and its BestPractices program offer a wide variety of resources to industrial partners that cover motor, steam, compressed air, and process heating systems. For example, BestPractices software can help you decide whether to replace or rewind motors (MotorMaster+), assess the efficiency of pumping systems (PSAT), or determine optimal insulation thickness for pipes and pressure vessels (3E Plus). Training is available to help you or your staff learn how to use these software programs and learn more about industrial systems. Workshops are held around the country on topics such as "Capturing the Value of Steam Efficiency," "Fundamentals and Advanced Management of Compressed Air Systems," and "Motor System Management." Available technical publications range from case studies and tip sheets to sourcebooks and market assessments. The *Energy Matters* newsletter, for example, provides timely articles and information on comprehensive energy systems for industry. You can access these resources and more by visiting the BestPractices Web site at **www.oit.doe.gov/bestpractices** or by contacting the OIT Clearinghouse at **800-862-2086** or via email at **clearinghouse@ee.doe.gov.**

BestPractices is part of the Office of Industrial Technologies' (OIT's) Industries of the Future strategy, which helps the country's most energy-intensive industries improve their competitiveness. BestPractices brings together the best-available and emerging technologies and practices to help companies begin improving energy efficiency, environmental performance, and productivity right now.

BestPractices focuses on plant systems, where significant efficiency improvements and savings can be achieved. Industry gains easy access to near-term and long-term solutions for improving the performance of motor, steam, compressed air, and process heating systems. In addition, the Industrial Assessment Centers provide comprehensive industrial energy evaluations to small and medium-size manufacturers.

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